PRODUCTION OF INDOLEACETIC ACIDS

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Inventor:

HIROSE KATSUTOSHI; IMAHORI HIDEKAZU; YANASE

TOMOHIDE; IKEJIRI SATORU

Applicant:

KOBE TENNENBUTSU KAGAKU KK: JAPAN SCIENCE

& TECH CORP

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Abstract of JP2001026579

PROBLEM TO BE SOLVED: To industrially advantageously obtain an indoleacetic acid useful for a plant growth regulator in a high yield by the specific reaction of a nitrotoluene compound as a starting raw material. SOLUTION: Indoleacetic acids of formula V (wherein R is carboxyl group, or the like) are obtained by the following steps: obtaining a styrene compound of formula II (wherein B is amino group) by introducing a (substituted) aminomethylene group into methyl group of a 2-nitrotoluene compound of formula I (wherein A ring is benzene ring); subjecting the compound of formula II to reductive reaction (preferably hydrogenation reaction in the presence of Raney nickel catalyst) which can avoid accidental firing to form an indole compound of formula III; introducing a (substituted)aminomethyl group into the 3 position of the compound of formula III to obtain an aminomethylindole of formula IV (wherein C is amino group); converting the aminomethyl group of the compound of formula IV into cyanomethyl group to form a cyanomethylindole compound; and hydrolyzing the cyano group and, if necessary, converting the carboxyl group into its salt or ester.

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